

MULTIPLE STAGE PROCESS FOR REMOVAL OF SULFUR FROM COMPONENTS FOR BLENDING OF TRANSPORTATION FUELS

ABSTRACT OF THE INVENTION

- 5 Economical processes are disclosed for the production of fuels of reduced sulfur content from a feedstock, typically derived from natural petroleum, wherein the feedstock is comprised of limited amounts of sulfur-containing organic compounds as unwanted impurities. The processes involve an integrated, multiple stage system for converting these impurities to higher boiling products by alkylation and removing the
- 10 higher boiling products by fractional distillation. Advantageously, the processes include selective hydrogenation of the high-boiling fraction whereby the incorporation of hydrogen into hydrocarbon compounds, sulfur-containing organic compounds, and/or nitrogen-containing organic compounds assists by hydrogenation removal of sulfur and/or nitrogen. Products can be used directly as transportation fuels and/or blending
- 15 components to provide, for example, more suitable components for blending into fuels which are more friendly to the environment.